Additional chart coverage may be found in CATP2, Catalog of Nautical Charts.  $SECTOR \ \pmb{3} -- CHART \ INFORMATION$ 

# SECTOR 3

#### SOUTHEAST SHORE OF THE BARENTS SEA

**Plan.**—This sector describes the SE shore of the Barents Sea, from Mys Kanin Nos to Mys Bolvanskiy Nos, and the offlying islands. Proliv Yugorskiy Shar, the coast of Ostrov Vaygach, and Proliv Karskiye Vorota are also described. The descriptive sequence is ENE from Mys Kanin Nos to Mys Bolvanskiy Nos, NE in Proliv Yugorskiy Shar, NW along the SW and NE sides of Ostrov Vaygach, and NE in Proliv Karskiye Vorota.

### **General Remarks**

3.1 The coast between Mys Kanin Nos and Mys Bolvanskiy Nos, 350 miles ENE, is fringed by a belt of tundra with barren country lying inland. It is sometimes steep and rocky, and descends in abrupt cliffs to the sea, but more often it slopes down gently in mudbanks and sandhills. Several large bays indent this section of coast.

From Mys Kanin Nos, the coast trends E and SE for about 100 miles to Mys Mikulkin, the W entrance point of Cheshskaya Guba. Mys Barmin, the E entrance point, lies 31 miles ESE of Mys Mikulkin. Indigskaya Guba lies between Mys Barmin and Mys Svyatoy Nos, 21 miles NE. From the latter point, the coast continues for about 150 miles in a general NE direction to Mys Russkiy Zavorot, which is located on the W side of Pechorskaya Guba. Between Russkiy Zavorot and Mys Belyy Nos, 128 miles NE, the SE end of the Barents Sea forms the regular bight of Guba Khaypudyrskaya which extends about 20 miles S.

Ostrov Kolguyev lies 47 miles N of Mys Svyatoy Nos. This island has the appearance of a rounded tableland, the middle part consisting of high hills with no outstanding peaks. A chain of smaller islands, lying in the approach to Proliv Yugorskiy Shar, extends 37 miles NW from a position 5 miles ENE of the extremity of Mys Medynskiy Zavorot.

Reka Pechora is the most important of many rivers which discharge into the sea along this coast. Naryan Mar lies 52 miles SSW of the river entrance and is the principal commercial port in this area.

Ostrov Vaygach, about 57 miles long in a NW/SE direction, is separated from the mainland by Proliv Yugorskiy Shar and from the S part of Novaya Zemlya by Proliv Karskiye Vorota. These two straits afford seasonal communication between the Barents Sea and the Kara Sea. Passage through the straits depends mainly on ice conditions. Numerous dangers lie around this island, particularly off its SW and NW sides. From seaward, the surface of the island appears fairly even, but several ridges stand parallel to the SW coast, about 5 miles inland. In addition, a range of hills rises parallel to the NE coast of the island, about 7 miles inland.

Winds—Weather.—In autumn, winter, and early spring, winds in the Barents Sea and Kara Sea regions are generally SSW to S. Severe gales accompany the passage of cyclonic storms and the winds reach or exceed force 7 along the open coast on 7 or 8 days a month from November to February,

inclusive. These strong winds also blow on an average of 5 days during March and on 3 days during April and October. The wind direction changes towards N and the velocity decreases throughout the area in April, with winds of force 7 or stronger occurring fewer than 3 days a month from May to September. Prevailing winds along the coast of Timanskiy Bereg are NE from June through August. Northwest winds are also quite frequent in August.

Average cloudiness exceeds 75 percent coverage throughout the year over the Barents Sea, with fewer than 30 clear days and more than 180 cloudy days annually. Maximum cloudiness occurs from June through October and minimum cloudiness occurs in March and April.

The amount of precipitation is minimal, decreasing from S to N and nowhere exceeding 51cm a year. The months from November to May are relatively dry. A short season of moderate rain lasts from June to October. In winter, snow falls 10 to 15 days each month, accumulating until the spring thaw.

Poor visibility is frequent during all seasons throughout the area. The worst visibility is caused by fog and snow. Fog is prevalent during the entire year. Winter fog is less frequent. Beginning with April, the recurrence of fogs begins to increase, reaching its maximum in July and August, after which time it decreases. In autumn, and especially in the first half of winter, where there are sharp decreases in air temperature, it is not unusual to observe "sea smoke," a low fog floating over the sea.

**Ice.**—Early in October, ice begins to form in the small bays and inlets of the Barents Sea and it is closed to navigation from November through May. However, with the aid of icebreakers, some shipping is carried on until the end of December, beginning again in April.

The mean date for the breaking up of the ice in Proliv Yugorskiy Shar is June 28, but the strait is not clear of ice until about August 1. The month of August can be considered as the best for navigating between Mys Kanin Nos and Proliv Yugorskiy Shar.

If ice from the Kara Sea does not drift into the strait during the summer it may not become frozen solid until December. However, if ice is blocking the strait when freezing sets in, the entire passage may be closed to navigation at the end of October. Navigation may be possible in the strait about the middle of June, or it may be blocked during the entire summer. The mean date for the closing of navigation is November 23.

The presence of ice in Proliv Karskiye Vorota during the navigation season is closely connected with the ice conditions in the SW part of the Kara Sea and off the E coast of Novaya Zemlya. When ice is present in these areas, winds from NW through N to E will cause ice to appear quickly in the strait, mostly on the NW side. If winds from these directions persist, the entire strait may become blocked with ice which, when tightly packed, forms a wall off the NE entrance.

**Tides—Currents.—**The Barents Sea region, which is one of the chief meeting grounds between relatively warm Atlantic

water and cold Arctic water, can be distinguished by its blue color and transparency. The current can usually be traced to about 70°N and 52°E, but farther E it meets a current setting outward from Pechorskaya Guba. The current initially flows NE and then, with perhaps a branch setting E to Proliv Yugorskiy Shar, N and W along the S coast of Novaya Zemlya. Vessels bound for Proliv Yugorskiy Shar are often set N toward Bukhta Lyamchina. Between Ostrov Matveyev and the strait, irregular currents, setting N and NNW with velocities of up to 4 knots, have been experienced.

The tide in the Barents Sea is semidiurnal in character. Diurnal inequality is relatively small except in Proliv Yugorskiy Shar, where a noticeable inequality exists between the heights of morning and afternoon tides

The tidal range may vary from about 0.9m in the narrow straits of Proliv Yugorskiy Shar to 2.1m in the SE part of the sea.

In the N part of Zemlya Frantsa-Iosifa the tides are semidiurnal, but in the middle and S parts of the archipelago the tides are of a mixed type. The tidal ranges vary between 43 and 56cm and are strongly affected by winds and barometric pressure.

**Caution.**—There are a number of formerly mined areas, which are considered to be safe for surface navigation, lying between Poluostrov Kanin and Ostrov Kolguyev, located NW of Ostrov Kolguyev, and between that island and Mys Belyy Nos.

Several Explosive Dumping Areas, the limits of which are shown on the chart, lie in the waters described in this sector.

It is reported (1992) that an unlit target barge is moored about 98 miles NW of the N extremity of Ostrov Kolguyev.

#### Mys Kanin Nos to Cheshskaya Guba

**3.2 Mys Kanin Nos** (68°40'N., 43°17'E.) is the low, narrow NW extremity of Poluostrov Kanin. It is backed by a range of hills extending SE along the middle of the peninsula. The highest and most prominent summit in this vicinity is a yellowish hummock, 164m high, which rises 6 miles ESE of the point. A light is shown from a structure standing 1 mile S of the N end of the point. A radiobeacon is situated about 1 mile N of the light. It is recommended that the point be given a wide berth

Prevailing winds on the outer coasts of Poluostrov Kanin are S from January to March, E during April, S during May, NE from June to August, S during September, and SW from October to December.

The climate along the N and NE coasts of Poluostrov Kanin and in Cheshskaya Guba is relatively mild. Along the outer coasts, the average annual air temperature is -1.1°C. The coldest months are January and February and the warmest are July and August. The summer months have sharp fluctuations in temperature.

Tidal currents in the vicinity of Mys Kanin Nos are reported to be both strong and irregular, sometimes attaining a rate of 5 knots. Depths off the N side of Mys Kanin Nos are very irregular. Reefs lie up to 1.5 miles offshore, and farther E there are shoals extending 3 to 5 miles offshore.

Caution.—In thick weather or during NW gales, the NE coast of Poluostrov Kanin should be given a berth of not less

than 20 miles as the depths off it are very irregular. In clear weather, it should not be approached within 14 miles or in depths of less than 50m.

The coast, for 55 miles E of Mys Kanin Nos, is steep and 15 to 27m high, being composed of sandy clay. The coast extending to Mys Laydennyy, 7 miles farther ESE, becomes sandy and is very low.

Ostrov Korga (68°22'N., 46°08'E.), located in an area of sand spits and banks, lies parallel to the coast about 2.5 miles SE of Mys Laydennyy. Vostochnaya Kambal'nitsa Light (68°24'N., 46°08'E.), equipped with a radar reflector, is shown from a structure standing near the middle of this island. A prominent wooden house, with an adjacent shed, is situated 1 mile SE of the light. A 3.5m shoal lies 2 miles NE of the SE end of Ostrov Korga. Extensive drying sandbanks join the NW end of the island to the mainland and almost fill the bay lying S of Mys Laydennyy.

The SE end of Ostrov Korga is steep-to. The channel lying between it and the NW edge of the sandbanks has depths of up to 12m and leads from seaward to a deep pool located SW of the island. Anchorage can be obtained in this pool by small vessels with local knowledge, sheltered from all winds.

A sloping cone-shaped hill, 111m high, stands 8 miles W of Mys Laydennyy and can be readily identified.

The coast near the mouth of Reka Vostochnaya Kambal'nitsa, 5 miles SSW of Ostrov Korga, consists of crumbling cliffs, 40m high, which are of a darker color than those farther N.

Anchorage can be obtained by small vessels with local knowledge, sheltered from all winds, close within the mouth of the river in a depth of 3m.

**Mys Rybnyy** (68°06'N., 46°32'E.) is a steep cliff, 20m high, located on the N side of the entrance of a river of the same name.

Shoals, with depths of 0.8 and 2.5m, lie 4.5 miles SE and 3 miles NE, respectively, of Mys Rybnyy.

**Mys Mikulkin** (67°49'N., 46°41'E.), 18 miles S of Mys Rybnyy, is low and formed of dark gray slate with streaks of mica. Above and below-water rocks fringe the point and extend up to more than 0.5 mile offshore. A light is shown from a structure standing on the point. A radiobeacon is situated at the light. Shoals, with a depth of 9.1m, lie 4 miles ENE and 2.5 miles SE of the light. Tide rips occur over these shoals during the S tidal current.

# Cheshskaya Guba

**3.3** This large bay is entered between Mys Mikulkin and Mys Barmin, 31 miles ESE, and recedes 60 miles S. Extensive banks and several off-lying shoals border the shores of Cheshskaya Guba, except near the entrance points.

Numerous rivers discharge along the shores, and some of the larger ones, which are entered along the S shore of the bay, are navigable by small vessels. However, navigation through the poorly charted S part of Cheshskaya Guba and the approaches to the rivers requires reliable local knowledge.

**Winds—Weather.**—Along the outer coasts, fog occurs during more than half of the days in summer. There is considerably less fog in winter. The period from December to

March has the least fog. Within Cheshskaya Guba, fog is rather infrequent, and usually covers the bay only as far S as the parallel of Mys Barmin.

**Ice.**—Cheshskaya Guba is never completely icebound. Ice conditions in the bay are variable, and in favorable conditions, the greater part of the bay is sometimes ice-free for long periods. In the S part of the bay, ice forms along the shore in November. The ice in the bay is not thick, but it is hummocky, especially close inshore over the shoal parts. Ice in the bay begins to melt in May, but due to the N and NE winds then prevalent, the bay does not usually become ice-free until the end of June.

**Tides—Currents.**—The flood current enters Cheshskaya Guba from NW and NE. One branch runs W and S along the N and W shores, respectively, while another branch runs S along the E shore towards the mouth of Reka Pesha, in the SE corner of the bay, and then W.

A current sets NE and divides off Mys Barmin, the greater part setting NW at a rate of 0.2 knot and the other part setting into Indigskaya Guba and toward Mys Svyatoy Nos (67°54'N., 48°36'E.), its NE entrance point.

**Depths—Limitations.**—General depths through the middle of the N part of the bay are ample, but along the W and E sides there are many shoals. The S half of Cheshskaya Guba has not been thoroughly examined, but dangers are suspected here.

From a depth of 55m in the entrance, the depths shoal gradually to about 44m in the central part of the bay. The 10m curve follows the general trend of the shore, but lies at varying distances offshore. It lies 7 to 12 miles from the W shore, 15 miles from the S shore, and about 5 miles from the E shore, but narrows rapidly as it approaches a point 5.2 miles SW of Mys Barmin.

The only steep-to shore is located between Mys Mikulkin and the mouth of Reka Zhemchuzhnaya, 8 miles W. Here the 10m curve lies 0.2 mile to 1.5 miles offshore. A detached shoal patch, about 10 miles in extent and with depths of 4.3 to 7.6m, lies with its NE extremity located 4.2 miles SSW of Mys Mikulkin. Another detached shoal patch, with a least depth of 5m and about 4 miles in extent, lies with its NE extremity located 7 miles S of Mys Mikulkin.

**3.4** North and W shores of Cheshskaya Guba.— Above-water and submerged rocks extend up to 0.5 mile from the N shore of the bay for a distance of 4 miles W of Mys Mikulkin. Farther W, the shore is sandy.

A 4.8m shoal lies 9 miles S of Mys Mikulkin. Another shoal, lying between 4 and 16 miles SW of the point, has a least depth of 4.3m near its center.

The E entrance point of Reka Zhemchuzhnaya (67°49'N., 46°21'E.) is low and sloping, but the W entrance point is 18m high and steep. Between the mouth of this river and that of a river 8 miles WSW, the shore rises to an elevation of 38m and consists of sandy cliffs, nearly vertical in places, interspersed by ravines which are covered with grass and stand out against the yellow sand on the cliffs.

Between the mouth of Reka Gubistaya (67°41'N., 45°20'E.) and Mys Zap Ludovatyy Nos, 7 miles S, there are steep cliffs which gradually become lower toward the point. The shore continues to be steep and up to 9m high for a farther 8 miles SW.

Between Mys Zap Ludovatyy Nos and Mys Nyagrinskiy Nos, 7 miles SSE, the W shore of Cheshskaya Guba recedes to form a bay at the head of which is the mouth of Reka Chesha (67°20'N., 44°54'E.).

**3.5 South shore of Cheshskaya Guba.**—From Reka Vizhas, at the head of Cheshskaya Guba, the S shore trends very irregularly E for 36 miles to the mouth of Reka Pesha. Between the mouths of these rivers, a drying shorebank extends 0.2 to 2 miles from the coast which is generally low and sandy.

**Reka Vizhas** (66°50'N., 46°42'E.), with a depth of 1.8m off its entrance, can only be entered by day and in calm weather. Both riverbanks are sandy. The W bank rises to a height of 3.7m and the E bank is slightly lower. The river usually freezes in the middle of October and opens in the middle of May. The river is an outlet for a lake located 70 miles inland.

**Mys Omskiy** (66°52'N., 46°30'E.), 17m high, is steep and sandy. Several huts are situated on the point. A light is shown from Mys Omskiy and a beacon, 15m high, also stands on the point.

The entrance of Reka Oma lies 2 miles ESE of Mys Omskiy. The E entrance point is low and steep. There are depths of 3.4 to 4m over the bar at its mouth. At HW, the navigable depths within the river, as far as a village about 18 miles upstream, are 6 to 7.3m. Beacons are placed on the banks of the river at the beginning of the navigational season and are easily distinguished. The tidal currents in Reka Oma are very strong. The flood current runs for 3 to 4 hours and at springs is accompanied by a bore.

**Reka Pesha** (66°55'N., 47°27'E.), the largest river draining into Cheshskaya Guba, is entered 58 miles SSE of Mys Mikulkin. This river is tidal for about 27 miles from its entrance, which is about 0.8 mile wide. On the E side of the river, the land is low and slopes gently to the sea. On the W side, the land rises to heights of 18 to 22m and then falls vertically to the sea.

Sand shoals, lying off the entrance, dry for a distance of 2 to 3 miles seaward, and shifting sandbars lie in the entrance. During stormy weather, the sea breaks heavily over them. Reka Pesha usually freezes in the latter part of October and is open again in the middle of May.

Depthson the entrance bar at LW are 1.2 to 1.5m. Close within the bar, and then up to a settlement about 26 miles upstream, the depths in the winding channel are 3.7 to 5.5m. Beyond the settlement, the depths decrease sharply.

Tidal currents in the river at times attain a velocity of 3 knots. Reliable local knowledge is required for entering the river. Upon entering at HW, vessels should anchor and proceed upstream during the ebb tide. Entry should be attempted only in daylight and during good weather.

A light is shown from the W side of the river mouth.

3.6 East shore of Cheshskaya Guba.—The E shore trends generally S for 44 miles from Mys Barmin (67°38'N., 48°00'E.) to the entrance of Reka Pesha. Along this coast are many dangerous off-lying shoals, both known and suspected. Most of these shoals lie off the entrance of a shallow stream located 13 miles NNE of Reka Pesha. From Mys Suvoynyy

(67°12'N., 47°43'E.), a drying shorebank, 1 to 2 miles wide, extends S and SSW to the entrance of Reka Pesha.

**Mys Barmin** (67°38'N., 48°00'E.), the common entrance point of Cheshskaya Guba and Indigskaya Guba, is marked by a light which is equipped with a radar reflector. Shoals, with depths of 8 and 7m, lie 3 miles N and 8.5 miles NNE, respectively, of Mys Barmin.

**Anchorage.**—Good anchorage is available in the middle of Cheshskaya Guba, 15 to 20 miles offshore, with a bottom of mostly sand. The anchorage is exposed to N winds, which raise a heavy sea. Vessels with local knowledge can also anchor off the entrances to the various rivers.

### Indigskaya Guba

3.7 This bay is the coastal indentation lying between Mys Barmin and Mys Svyatoy Nos (67°54'N., 48°36'E.), 21 miles NE. A light, equipped with a radiobeacon, is shown from the latter point. The bay recedes 10 miles SE to the mouth of Reka Indiga (67°42'N., 48°45'E.), which has a course winding 85 miles from its source in an interior swamp area. Several other small streams discharge into the bay. The depths, in general, decrease gradually to the head of the bay, from depths of 14 to 18m in the entrance, the bottom being mostly sandy.

**Winds—Weather.**—Indigskaya Guba's severe climate and low air temperatures are a result of winds from the sea in summer, the strong, cold, and sustained winds in winter, great relative humidity throughout the year, and the late disappearance of ice in spring.

The fog in Indigskaya Guba occurs most often during the navigational season. Fog usually prevails here at night, and at times lasts from 2 to 5 days.

**Ice.**—Ice first appears on the shores of Indigskaya Guba early in November and becomes heavier and thicker sometimes in the latter half of December, but more often not until January. The ice becomes fast in February or March and breaks up in May.

When ice flows out of the bay, it presses in toward Mys Svyatoy Nos and piles up in hummocks, sometimes forming a belt of dense and heavy floes. During N or NW winds, the pressure is increased. The waters in the vicinity of Mys Svyatoy Nos must be regarded as dangerous in winter.

**Tides—Currents.**—Tidal currents off the middle of Indigskaya Guba entrance are more or less rotary, clockwise, and attain velocities at springs of 1.5 to 1.8 knots. Reka Indiga is tidal for a distance of 18 miles from its mouth. The tidal rise is about 1.5 to 2.1m. During strong winds, the rise is 2.7m. Ebb tidal currents in the river sometimes attain a velocity of 5.2 knots.

**Depths—Limitations.**—Depths in the bay are shallow. Depths decrease gradually toward the mouth of the river from depths of 20m lying between Mys Barmin and Mys Svyatoy Nos

The shores are fringed by rocks and shoals. Svyatonosskaya, a shoal with a depth of 3.6m, lies 4.4 miles SE of Mys Svyatoy Nos and is the most hazardous.

Reka Indiga, 104 miles long, is accessible at HW to vessels with drafts not exceeding 3.5m. The least depth in the channel is 1.8m.

**Ostrov Timonets** (67°45'N., 48°30'E.), from which a light is shown, is a small, dark gray, and rocky island. It lies in the middle of Indigskaya Guba 10 miles SSW of Mys Svyatoy Nos and 5 miles offshore. Fringing reefs extend about 0.5 mile N from the island. Shoal patches, with depths of 7.9 and 7m, lie about 11 miles WSW and 7 miles W, respectively, of Ostrov Timonets. No. 1 lighted buoy, the outer sea buoy, is moored 2.5 miles SSE of Ostrov Timonets and marks the entrance to the channel leading across the bar.

The S shore of Indigskaya Guba between Mys Barmin and Mys Chaichiy, 8 miles E, is low and sandy. Two small rivers, which discharge into the bight formed between these points, are navigable only by small craft.

Mys Chaichiy, formed of slate, is 8.8m high. A bank, with a depth of 9.2m near its outer end, extends 3 miles NW from this point.

Between Mys Chaichiy and the entrance of Reka Indiga, 8.5 miles ENE, the shore is 23 to 31m high and formed of clay and sand. A river discharges into the bay 5.5 miles E of Mys Chaichiy.

**3.8** The E shore of Indigskaya Guba, between Mys Svyatoy Nos and the mouth of a river 7.5 miles SSE, is sandy and rises gradually. Depths at a distance of 90m offshore are 3.7 to 5.9m, over a sandy bottom. The river is navigable by small craft at HW.

A detached shoal, with a least depth of 2.3m (1949), lies 4.5 miles SW of Mys Svyatoy Nos.

The shore between the river mouth and Mys Popova, 5 miles S, rises steeply to heights of 26 to 30m with strata of a light color stone in almost vertical stripes. Several buildings, including a hydrometeorological station, stand on the end of a spit which extends 0.8 mile S from Mys Popova.

**Anchorage.**—During E winds, vessels can obtain anchorage in a depth of 11m about 2 miles SE of Ostrov Timonets. Anchorage, sheltered from all winds, may also be obtained 1.2 miles upstream of the mouth of Reka Indiga in depths of 5.5 to 9.2m, mud.

**Caution.**—Indigskaya Guba has not been thoroughly examined and the soundings are incomplete. Vessels should approach the shore with great care.

A local magnetic anomaly is reported to exist in the vicinity of Mys Svyatoy Nos.

# **Ostrov Kolguyev**

**3.9 Ostrov Kolguyev** (68°42'N., 48°40'E.) lies 47 miles N of Mys Svyatoy Nos. From seaward it appears as a flat elevation, in the middle of which gently sloping hills attain heights of 71 to 133m. These hills are reported to be visible at times from a distance of about 40 miles.

The island surface consists of swampy tundra intersected by ravines, and is devoid of trees. The mouths of the rivers are mostly shallow and, during winds from seaward, they become blocked by sand and gravel. Natural landmarks are few, but there are several lighted aids.

**Winds—Weather.**—The climate of the island has been classified as Arctic Maritime. Winters are long, but not extremely cold. The Gulf Stream keeps the Barents Sea clear

of ice much longer than areas to the E, so that the lowest temperatures at Ostrov Kolguyev are delayed until March.

In winter, the island lies in a region of low pressure, while in summer, when the mainland is more intensely heated, pressure over the sea is high. From September through March, SW winds prevail, while NW and S winds are rather frequent in autumn. East winds become less frequent in autumn. During the very coldest period, W, SW, and S winds predominate, but with the approach of spring they become E and N. In summer (July to mid-September), the winds are NW, N, and E. The strongest winds are observed in winter. Summer winds are usually light. Stronger winds often bring snow squalls and snow storms.

Fog in the vicinity of Ostrov Kolguyev occurs most frequently in summer, when more than half of the days are foggy. Fogs are more prevalent during S, NE, and E, winds. The least incidence of fog occurs during NW and N winds.

Ice.—Ice, driven by wind, usually appears in late October or early November. In some years, there has been no ice in the vicinity of Ostrov Kolguyev in June, but in July, ice will generally be met N and S of the island, and sometimes at a considerable distance W of it.

**Tides—Currents.**—Tidal currents are strong off the seaward side of Koshki Ploskiye (68°41'N., 49°37'E.), which is steep-to. The N current attains a velocity of 3 knots and the S current attains a velocity of 2.5 knots.

**Aspect.**—The N coast, which is 24 to 40m high, has a large number of landslide formations. Coastal bluffs and projections are seen in only a few low, narrow points.

Kolguyevskiy Severnyy Light (69°30'N., 49°04'E.) is shown at the N end of the island. A disused light tower, at which a radiobeacon is situated, stands 1.2 miles ENE of the light.

The E coast of Ostrov Kolguyev is fronted by a long sandspit, which is separated from the mainland by numerous shallow channels and reported to lie with its seaward edge located up to 7 miles offshore. Small streams discharge along the mainland coast.

Kolguyevskiy Vostochnyy Light (69°05'N., 50°17'E.) is shown from the E extremity of the island. A radiobeacon is situated at the light.

The S coast of Ostrov Kolguyev is 9 to 15m high with a large number of ravines and landslides. Continuous action by the sea has eroded the coast and formed narrow off-lying sandspits which front the entire S side of the island.

Koshki Ploskiye is a low spit which extends SE, then generally E, from the SW end of Ostrov Kolguyev. Its E end lies 8 miles off the S coast of the island. Part of the spit, which lies W of the S extremity of the island, is covered with tundra and flanked on the inshore side by a strip of sand, then for a distance of 21 miles to its E end, the spit becomes entirely sandy and so low that much of it is submerged. In several places, the spit is broken by narrow and shallow channels. A light is shown from a structure standing at the E end of Koshki Ploskiye.

**Caution.**—Abnormal refraction of the atmosphere in this area often makes celestial navigation unreliable. Refraction also accounts for objects being seen for far greater distances than usual.

**3.10 Bugrino** (68°46'N., 49°14'E.), situated near the mouth of a river on the S side of the island, is the principal settlement in this region. The white building of a former chapel is conspicuous from S. Landing at Bugrino is difficult at LW due to a drying bank which fronts the mouth of the river. The recommended landing is near an isolated building standing SW of the settlement.

**Aspect.**—Range lights are situated on the comparatively high coast, 12.5 miles ENE of the S extremity of the island. These lights, bearing 295°, indicate the approach to an anchorage area lying SW of Bugrino.

**Anchorage.**—Vessels can anchor almost anywhere in the vicinity of Ostrov Kolguyev, depending on the direction of the wind. Anchorage, sheltered from W winds, can be taken 1.6 miles SW of Bugrino at the intersection of the Bugrino range line, mentioned above, with the settlement range beacons, in a depth of 5.5m, mud. Local knowledge is required.

Vessels can anchor 4 miles off the NW and W coasts in depths of 27 to 33m, sand and mud. Small vessels, with drafts not exceeding 3.7m, can find shelter from strong NE winds 0.8 mile off the W coast.

**Caution.**—An obstruction lies 1.8 miles S of the settlement.

### **Timanskiy Bereg**

**3.11** Timanskiy Bereg extends from Mys Svyatoy Nos to Mys Russkiy Zavorot, the W entrance point of Pechorskaya Guba, 146 miles ENE. It is sandy, level, and not more than 9m high. Rivers discharging along the coast are shallow.

Winds—Weather.—Prevailing winds along this coast are NE from June through August, although, NW winds are also quite frequent in August. In September and October, SW winds predominate, but occasionally the winds are from the N and SE quadrants. From November to March, the winds are primarily SW, and in April are N and NE. In May, the wind is from all quadrants, although most frequently they are NE.

Fog, which is extremely dense along this coast, occurs often in summer and appears suddenly. The month in which fog is most frequent is June.

**Tides—Currents.**—Tidal currents along Timanskiy Bereg attain lesser velocities in the SW part than in the NE part. The currents are affected by wind. The currents may attain rates of 1.5 to 2 knots in the SW part and 3 to 3.5 knots in the NE part.

**Depths—Limitations.**—General depths along Timanskiy Bereg increase gradually to 22m from a depth of 3.7m at a distance of about 100m offshore. The bottom is fine gray sand, except off Mys Svyatoy Nos, where it is rocky. A coastal bank, with depths of less than 18m, extends 9.5 miles N from the NW side of Ostrov Sengeyskiy, which lies 57 miles ENE of Mys Svyatoy Nos.

**3.12 Ostrov Sengeyskiy** (68°27'N., 50°58'E.), the only island and high land along this section of coast, lies nearly midway between the terminal points and is easily identified. A light is shown from the NW side of the island.

Anchorage can be obtained by vessels with local knowledge 2 to 3 miles off the N coast of Ostrov Sengeyskiy, in depths of 9 to 18m.

**Guba Kolokolkova** (68°34'N., 52°13'E.) is a shallow basin, with a narrow entrance fronted by a bar, lying 16 miles ENE of

Ostrov Sengeyskiy. The bay is accessible to vessels with drafts of up to 2m at high tide. The channel changes slightly each year.

**Tides—Currents.—**Tidal currents attain velocities of 2.5 to 3 knots. It is inadvisable to enter the basin before half-tide.

**Depths—Limitations.**—A drying and steep-to sandbank lies on the SW side of the fairway, 0.3 mile SW of Mys Kolokolkovskiy Nos, the E entrance point. The area extending 1 mile SW of **Mys Tonkiy Nos** (68°34'N., 52°14'E.), the W entrance point, is covered with breakers during onshore winds.

**Anchorage.**—An anchorage buoy is moored at the entrance to the bay, 1.4 miles N of Mys Tonkiy Nos, in depths of 6 to 7m. Small vessels with local knowledge can enter Kolokolkova Guba and find secure anchorage in the E part of the estuary in a depth of 9m, mud.

**Caution.**—A stranded wreck lies on the W side of the entrance to Kolokolkova Guba, about 1.5 miles SW of Mys Kolokolkovskiy Nos.

**3.13 Reka Peschanka** (68°48'N., 53°02'E.) enters the sea 22 miles NE of Mys Kolokolkovskiy Nos. Its steep W bank is prominent from seaward, being black, with yellow sand in the ravines. A light is shown from the SW side of the mouth of the river.

Khodovarikha Light (68°56'N., 53°46'E.), equipped with a radiobeacon, is shown from a structure standing on a hill, 18 miles NE of the river entrance.

Off-lying shoals, with depths of 18 and 14.4m, lie 31 miles WNW and 22 miles NW, respectively, of the light.

Russkiy Zavorot Sredniy Lightis shown from a structure standing 6.5 miles ENE of Khodovarikha Light. It was reported (1960) that this light structure is not visible on radar until about 6 miles distant.

**Mys Russkiy Zavorot** (68°59'N., 54°33'E.), at the NE extremity of Timanskiy Bereg, is also the E extremity of a cape enclosing the NW side of Pechorskaya Guba. A light, equipped with a radar reflector, is shown from the E end of the point. A racon is situated at the light.

### Pechorskaya Guba

**3.14** Pechorskaya Gubais the extensive bay lying between Mys Russkiy Zavorot and Mys Bizekova(Bizyukova), the W extremity of Ostrov Pesyakov 60 miles ESE. The inner part of the bay is the estuary of Reka Pechora, the entrance of which lies 41 miles S of Mys Russkiy Zavorot. Several coves indent the irregular shores of Pechorskaya Guba.

**Gulyayevskiye Koshki** (68°54'N., 55°32'E.), a chain of lowlying islands and sandbars, extends across the entrance of the bay. At times, these dangers are inundated and their heights of 0.6 to 2.1m make them visible for only a short distance. They are numbered consecutively from Mys Russkiy Zavorot to Mys Bizekova. Two navigable channels lead through these dangers and those in the inner bay to the entrance of Reka Pechora. The W channel, which is generally used, is marked by buoys and lighted ranges. A lighted sea buoy (68°54'N., 55°49'E.) is moored about 22 miles WNW of the W extremity of Koshki No. IX island.

The shores of Pechorskaya Guba are mostly low, sandy, and swampy. Numerous streams discharge into the bay and, except for Reka Pechora, they are all shallow and accessible only to small craft at high tide.

**3.15 Gora Pitkov Kamen** (68°29'N., 56°03'E.), a ridge located 9.5 miles inland from the S shore of the bay, rises to an elevation of 164m, about 44 miles SE of Mys Russkiy Zavorot. This is the most prominent, natural landmark available for vessels approaching Pechorskaya Guba. This ridge may be seen in clear weather from a distance of 25 miles. Numerous lighted and unlighted navigational aids are situated in the bay and Reka Pechora.

A large consicuous building, with several radio radio masts, stands about 4 miles SW of Mys Gorelka (68°38'N., 56°03'E.).

Reka Pechora, on which the commercial port of Naryan Mar is situated, is the most important river included in this sector. Though navigable from its mouth nearly to its source, a distance of about 980 miles, traffic is restricted because of the short period between the breaking up of the ice, with the ensuing floods, and the setting in of the long winter. The delta of the river, which begins about 110 miles from its mouth, terminates in 20 separate streams, only the largest of which will be described.

Winds—Weather.—In the summer months, July and August, NE winds prevail. During autumn, September through the first half of October, the winds are SW. In winter, the middle of October through March, the winds are S. In spring, April to June, the winds are SW. Summer storms are rare, but those that occur are violent and can cause considerable damage.

Pechorskaya Guba lies within the Arctic Circle. The average annual air temperature is between 3° and 5°C. Temperature changes in the bay area are often abrupt. After damp, warm days, the wind may become NE and bring snow. Within Reka Pechora, the average annual temperature is 3.3°C.

The relative humidity in the bay area is very high. Fog is prevalent in Pechorskaya Guba and at times may appear suddenly. June is the foggiest month. Along Reka Pechora, fog is considerably less frequent than elsewhere in the Barents Sea. Most of the river fog occurs in August and October. Throughout this region, cloudy and overcast days are more prevalent than clear days.

**Ice.**—Floating aids are removed during the ice season. The estuary begins to freeze towards the end of October, but occasionally ice forms at the beginning of the month. The estuary becomes completely covered with fast ice, and attains its maximum thickness of 1.2m in spring. The edge of the fast ice usually reaches Gulyayevskiye Koshki in April.

Reka Pechora is usually frozen, as far as 9 miles below Naryan Mar, by October 28 and is usually clear of ice by May 29. The clearing of ice from the bay depends mainly on the wind direction. Southeasterly and S winds drive out the ice, but this does not take place until at least two weeks after the ice in Reka Pechora off Naryan Mar has cleared. The ice usually then clears rapidly. This final clearance generally occurs at the end of June and the beginning of July.

**Tides—Currents.**—The flood current runs SW into Pechorskaya Guba and the ebb runs NE. In the N part of the entrance channel, between Gulyayevskiye Koshki No. III (68°54'N., 55°32'E.) and abreast Aleksandrovskaya Mel

(68°46'N., 55°48'E.), the flood current runs SW and the ebb current runs NE, attaining velocities of up to 2 knots.

Tidal currents at Reka Pechora bar and in the river entrance set in the direction of the fairway. The ebb currents are the strongest and attain velocities of 1 knot on the bar, 1.5 knots at the river mouth abreast Mys Bolvanskiy Nos, and 0.8 knot abreast Mys Sokolka, 7.5 miles within the entrance.

**Caution.**—Abnormal refraction of the atmosphere is frequent in Pechorskaya Guba and occurs mostly during slight S winds. This refraction produces a mirage effect which distorts the coastline and makes navigation difficult.

**3.16** Pechorskaya Guba is very shallow throughout most of its area and encumbered with known and unknown dangers. Large sections of the bay have not been sounded or examined and only the two navigation channels and their adjacent shoals have been thoroughly surveyed. The W approach channel is the only practicable one to use. This channel has a least depth of 5m.

**Pilotage.**—Pilotage is compulsory. Vessels proceeding to the port of Naryan Mar should order a pilot through the harbormaster 24 hours in advance and confirm their ETA not later than 6 hours before arrival.

**Anchorage.**—During gales from between N and W, vessels can obtain sheltered anchorage, off the SE side of Aleksandrovskaya Mel, in depths of 5 to 7m.

There are no anchorages in Pechorskaya Guba which are sheltered from all winds and vessels, compelled to anchor, should contact the harbormaster.

**3.17** Naryan Mar (67°39'N., 53°00'E.) (World Port Index No. 62770) is a commercial port situated on the SE bank of Reka Pechora, 52 miles upstream from Mys Bolvanskiy Nos, the E entrance point. The port is only open for navigation for a period of 120 to 130 days a year because of ice which forms in the river around the latter part of October and remains until about the end of June. The permitted draft for entry to the port is about 4.5m, but it is usually set by the port authorities at the beginning of the navigation season. Vessels with drafts of up to 4.9m can cross the bar at high tide. The maximum permitted length of a vessel is 125m. The port of Naryan Mar is primarily engaged in the export of timber. There are depths of up to 5.5m alongside the berths.

# Pechorskaya Guba to Proliv Yugorskiy Shar

**3.18** The mainland coast from abreast Mys Bizekova (68°42'N., 57°14'E.) to the SW entrance of Proliv Yugorskiy Shar, 84 miles NE, trends ENE for 45 miles to the extremity of Mys Medynskiy Zavorot (68°59'N., 59°12'E.) and S for 34 miles to the head of Khaypudyrskaya Guba. It then trends N for 23 miles to Mys Sin'kin Nos (68°43'N., 59°53'E.) and NE for 70 miles to the entrance of the strait. This stretch of coast is removed from the normal navigation routes used by vessels passing through the Barents Sea, and very few vessels have approached the land. The coast has not been closely examined.

Ostrov Matveyev (69°28'N., 58°32'E.) is the NW and most conspicuous of a chain of low, rocky islands which extends 37 miles NW from a position 5 miles ENE of Mys Medynskiy Zavorot. A reef, with a depth of 9.2m, extends about 0.5 mile

NW from the island and numerous above and below-water rocks fringe the other sides. A light is shown from the NW extremity of the island and a radiobeacon is situated at the light.

The chain, which lies in the approach to Proliv Yugorskiy Shar, extends 37 miles in a NW/SE direction between Ostrov Matveyev and Ostrov Malyy Zelents, the latter being a small island lying 5 miles ENE of the extremity of Mys Medynskiy Zavorot. Included between these two islands are five other islands and their adjacent dangers.

A fairway channel, 1 mile wide, leads S of Ostrov Matveyev. It has a least depth of 11.9m, but is not recommended. Vessels can anchoranywhere off Ostrov Matveyev, clear of the fringing dangers.

A rocky shoal, with a least depth of 0.4m, lies 2.5 miles SSE of Ostrov Matveyev, and another shoal, with a depth of 9.2m, lies 2.6 miles S of the island.

**3.19 Ostrov Dolgiy** (69°18'N., 59°00'E.), the largest island of the chain, lies 7.5 miles SE of the S extremity of Ostrov Matveyev. Several rocky points, 7m high, are located along the W coast of the island and are fronted by above-water rocks. The E coast of the island is sloping, not more than 6m high, and composed of sand covered in places by grass or black moss. Three small rocky islets lie close offshore.

A shoal spit, the outer extremity of which has a depth of 0.3m, extends 5 miles NW from the N end of Ostrov Dolgiy.

Ostrov Golets (69°23'N., 58°40'E.), small, low, and rocky, lies on the W side of the spit 2 miles WSW of the N end of Ostrov Dolgiy. A passage, about 1 mile wide and having a least depth of 11.8m, is reported to lie between the N end of the spit and the above and below-water rocks fringing Ostrov Matveyev. Anchorage may be obtained in the passage leading between the islands.

Ostrov Bol'shoy Zelenets, small and low, lies 4 miles SSE of the S extremity of Ostrov Dolgiy. A number of above-water rocks lie up to 1 mile off the NW side of the island.

**Ostrov Malyy Zelenets** (69°00'N., 59°31'E.), a small and low island, lies 1 mile S of the SE extremity of Ostrov Bol'shoy Zelenets. A light is shown from the S end of this island.

Mys Perevoznyy Nos (68°41'N., 59°24'E.), located 18 miles S of Mys Medynskiy Zavorot, is 42m high and forms the W entrance point of Guba Khaypudyrskaya. The coast between these two points is fronted by an extensive drying shorebank, which extends up to 4 miles seaward, and is intersected by the outlets of several small streams.

**Guba Khaypudyrskaya** (68°41'N., 59°26'E.) is entered between Mys Perevoznyy Nos and Mys Sin'Kin Nos, an 8.5m high point located 10 miles E. Several rocks lie close off the latter point.

The bay recedes S for 22 miles with many shallow streams discharging along its shore. Depths decrease toward the head of the bay from 8 to 15m in the entrance. Shoals, extending from both sides, reduce the fairway, which has depths of 3.7 to 5.5m, to a width of about 0.1 mile. Drying banks extend up to 2 miles seaward from the S shore.

**3.20** Mys Chernyy Nos (68°54'N., 60°52'E.) is low and bordered by drying shoals. Reka Korotaikha, a shallow river with a low-lying islet close within its entrance, flows between

Mys Chernyy Nos and Labagay, a 9.2m high round sandhill, 1 mile E. A shorebank extends about 4 miles from Labagay, but tapers to a width of 2.5 miles towards Mys Bel'kov Nos, 12.5 miles NNW. Several small rivers, with islets in their entrances, discharge into the shallow bay formed between Reka Korotaikha and Mys Bel'kov Nos.

Anchorage can be taken in a depth of 6m about 10 miles offshore, abreast the mouth of Reka Korotaikha. However, this position is not secure because of its exposure to winds and the ice which is often carried in from the Kara Sea.

**3.21** Mys Bel'kovskiy Nos (69°06'N., 60°47'E.) is the extremity of a low peninsula which projects 5 miles S from the coast. The E side of the peninsula is marshy while the seaward side is sandy and covered with pebbles. Numerous belowwater rocks fringe the point. Mys Bel'kov Nos lightis shown from a structure standing 3 miles NW of the S extremity of Mys Bel'kovskiy Nos.

The coast between Mys Bel'kovskiy Nos and Mys Belyy Nos, on the SE side of the entrance to Proliv Yugorskiy Shar, 33 miles NNW, consists in the S part of steep cliffs, 9m high. Farther N, the coast slopes gradually and is rocky. All of this stretch of coast is fringed by above and below-water rocks and many small streams discharge into the sea along it.

The 20m curve follows the general coastal trend towards Mys Belyy Nos and, in most places, lies 1 to 2.8 miles offshore. The curve approaches some of the smaller salient points, particularly Mys Pirkov, 2 miles S of Mys Belyy Nos, where it nearly reaches the shore.

**Ostrov Parus Luda** (69°26'N., 60°16'E.), a small islet located nearly 1 mile offshore and 10 miles S of Mys Belyy Nos, is useful for position-fixing by vessels approaching Proliv Yugorskiy Shar from S.

Mys Belyy Nos (69°36'N., 60°11'E.), a conspicuous point, lies on the SE side of the Barents Sea entrance to Proliv Yugorskiy Shar, 2 miles N of Mys Pirkov. Two prominent islets lie close off this point. A group of rocky islets, surrounded by sunken rocks, lies nearly 1 mile NNW of Mys Belyy Nos. This group lies on a shoal, with depths of less than 5.5m, which extends about 0.8 mile further SW.

Mys Greben (69°39'N., 59°59'E.), the S extremity of Ostrov Vaygach, lies 5.5 miles NW of Mys Belyy Nos. An islet, several above-water rocks, and several sunken rocks lie on a bank which has depths of less than 5.5m and extends nearly 0.8 mile SSE from Mys Greben. A main light structure stands on the W side of Mys Greben. An auxiliary light may be shown from a structure standing 0.2 mile SSE of the main light. A polar station has been established on the point.

### Proliv Yugorskiy Shar (69°40'N., 60°05'E.)

**3.22** Proliv Yugorskiy Shar, which separates Ostrov Vaygachfrom the mainland, is 21 miles long and trends in a general NE direction, connecting the Barents Sea with the Kara Sea. Its SW entrance lies between Mys Belyy Nos, on the mainland, and Mys Greben, on Ostrov Vaygach, 5.5 miles NW. Its NE entrance lies between Ostrov Sokoliy (69°50'N., 60°44'E.), on the mainland, and Mys Belyy (69°54'N., 60°29'E.) on Ostrov Vaygach, 8 miles WNW.

The shores of the strait are bluff on the Ostrov Vaygach side, but they slope more gradually on the mainland side. They are covered with tundra, and along them are scattered lakes and ponds. Hills of rock or clay rise from the tundra in places.

**Tides—Currents.**—A surface current sets through Proliv Yugorskiy Shar from the Barents Sea to the Kara Sea at a rate of 0.2 to 0.5 knot.

The tidal currents in the strait are semidiurnal, but have not been thoroughly studied. They are influenced to a large degree by the force and direction of the wind. The maximum rate of the tidal currents in the narrowest part of the strait is about 2.5 knots, but S of Mys Peschanyy (69°42'N., 60°26'E.), a rate of 3.5 knots has been observed.

In the narrowest part of the strait, the NE tidal current reaches its greatest velocity 3 to 4 hours after HW. The SW tidal current reaches its greatest velocity about 2 to 3 hours before the next HW.

Currents caused by the wind sometimes completely interrupt the tidal and surface currents. During periods of fresh NE winds, a current frequently sets SW and attains a rate of 4.5 knots in the narrowest part of the strait. Currents usually set in the direction of the deeper part of the channel leading through the strait.

Countercurrents have been frequently observed near the shores. The water level in the strait is raised by E winds and lowered by W winds.

**Depths.—Limitations**—The depths in the strait are very irregular. Shallow banks extend considerable distances from some parts of the shore and there are several off-lying shoal patches. The fairway has a least depth of 12m and is marked by range beacons and spar buoys.

**Aspect.**—Vessels approaching Proliv Yugorskiy Shar from the W will, in clear weather, first sight the hills in the S part of Ostrov Vaygach from a distance of about 21 miles. The coast of the mainland will not be visible until such vessels have approached much closer. Mys Greben, which is visible at a distance of 7 or 8 miles, first appears as three separate rocks. Soon after sighting this point, the peninsula, which terminates SE in Mys D'yakonova (69°40'N., 60°12'E.), will be seen, appearing first as an island.

Mys Belyy Nos, located on the mainland, can be identified by three cairns standing on a small point close NE of it. From a distance, this small point appears to be an islet.

Landmarks near the N entrance of the strait include the mast standing at Yushar Radio Station (69°49'N., 60°46'E.), which can be seen from a distance of over 20 miles with good visibility, and the light structures situated in the N part of the strait. Gora Sylympa, a saddle-shaped hill, rises 4.5 miles ESE of Mys Kamennyy (69°43'N., 60°43'E.) and forms a conspicuous landmark for vessels approaching the entrance from NNE.

**Pilotage.**—Pilotage is compulsory in Proliv Yugorskiy Shar. In the early part of the navigation season, before ice conditions make passage through it difficult, pilots are available to conduct vessels through the strait. The pilot boarding stations are situated about 2 miles SW of Mys Greben (69°39'N., 59°59'E.) and 1 mile E of Mys Kanin (69°48'N., 60°34'E.). Icebreaker vessels, when present in the strait, will assume the duties of the pilot vessels.

**Anchorage.**—Vessels can anchor almost anywhere in the strait. In the middle of the strait, where the currents are occasionally strong, there is comparatively good holding ground. The bottom in the greater part of the strait is formed of sand and small stones, with only the latter being found in some places.

Bukhta Varneka (69°41'N., 60°05'E.) affords the most secure anchorage in the strait and its vicinity. It is sheltered from winds from SW through N to E, but S winds cause a swell. The NE arm is better sheltered and has depths of 4 to 9m, but its head is shallower than that of the SW arm. The bottom is course in the outer part of the bay, changing to mud toward its head.

Anchorage close SW of Mys Greben, in a depth of 16.5m, is usually taken while awaiting ice convoys through Proliv Yugorskiy Shar and areas to the E.

**Caution.**—Vessels can enter the strait from the Kara Sea without difficulty in clear weather. However, care should be taken to avoid the dangers lying NW of Ostrov Sokoliy.

Because of the strong and variable currents it is recommended that vessels do not attempt passage through Proliv Yugorskiy Shar during fog, poor visibility, or at night. Fog occurs most frequently with NE winds, but may be experienced during winds from other directions.

The spar buoys, which mark dangers lying adjacent to the fairway, may be out of position or missing because of ice, wind or currents.

Abnormal magnetic variationwas reported (1937) to exist near Mys Greben and (1942) in the S entrance of Proliv Yugorskiy Shar.

**3.23 South side of Proliv Yugorskiy Shar.**—Between Mys Belyy Nos and Mys Khabarova (69°40'N., 60°23'E.), 5.5 miles NE, the mainland side of Proliv Yugorskiy Shar is rather irregular, but has no large indentations. The S part of the entrance to Proliv Yugorskiy Shar should be navigated with great caution.

**Khabarovo** (69°39'N., 60°25'E.) (World Port Index No. 62750), a village of wooden huts and reindeer hide tents, stands 1 mile SE of Mys Khabarova. A small church and a large storage shed are conspicuous from seaward. There is a polar station and a trading post at Khabarovo.

**Aspect.**—Range lights are situated on the S side of Proliv Yugorskiy. The front light, equipped with a radar reflector, stands 2.2 miles E of Khabarovo and the rear light is situated 1 mile S of it. These lights, aligned astern, indicate the channel leading through the NE part of the strait.

**Anchorage.**—Anchorage is obtainable in depths of 11.9 to 12.8m about 0.9 mile N of the village. There is good holding ground, the bottom being formed of sand and shells with mud in places. The anchorage is sheltered from all winds except those from between N and NE. During NE winds, better shelter can be found on the NW side of the strait in a depth of 11m about 1.5 miles NW of Mys Khabarova. With NE winds, drift ice may render anchoring hazardous.

**3.24** Ostrov Storozhevoy (69°41'N., 60°37'E.), a low islet almost divided into two parts by a depression near its N end, lies 2.5 miles SW of Mys Kamennyy. Rocky patches, with least

depths of 0.6 and 10.1m, lie 1 mile and 1.5 miles, respectively, W of this islet.

Between Mys Kamennyy and Mys Lakorzali, 5.5 miles N, a bank, with depths of less than 11m, extends from the coast on the E side of the strait.

Between Mys Lakorzali and Mys Yarossel (69°50'N., 60°47'E.), 2.5 miles NNE, a bank, with depths of less than 5.5m, extends up to about 0.8 mile offshore.

**Ostrov Sokoliy** (69°50'N., 60°44'E.), a small island, 24m high, lies on the above bank near its outer edge. A light is shown from the island. A reef, partly above water, extends about 100m from the NW side of the island. A rocky patch, with a least depth of 4.5m, lies nearly 1 mile NNW of Ostrov Sokoliy.

**Caution.**—Due to several sunken dangers, the shore should not be approached within depths of less than 8m.

**Yushar Radio Station** (polar station) (69°49'N., 60°46'E.) is situated on the mainland coast, 0.5 mile SE of the S end of Ostrov Sokoliy. The radio mast of the station, an iron framework structure, is 75m high and forms a good landmark.

Anchorage may be obtained off the radio station in depths of 8 to 13m, W of Ostrov Sokoliy.

Mys Yarossel is a hilly headland fringed by reefs on which the sea breaks. A light is shown from Mys Yarossel and an auxiliary light is shown nearby.

**3.25** North side of Proliv Yugorskiy Shar.—Bukhta Varnekais entered between Mys Greben and Mys D'yakonova (69°40'N., 60°12'E.), 4.8 miles E. The latter point is a bluff headland located at the SE end of a high peninsula which is connected to Ostrov Vaygach by two isthmuses separated by a lake

A shoal, with a least depth of 10.1m, lies 3 miles SW of Mys D'yakonova. A shoal, with a least depth of 3m near its E side, lies between 1 and 2.5 miles SW of the same point. A dangerous wreck, marked by buoys, lies on this shoal.

A 5.1m shoal patch lies about 1.2 miles W of Mys D'yakonova and is marked on its SW side by a buoy.

Vessels in Bukhta Varneka are more sheltered from drifting ice than in other parts of the strait as the current in the strait does not enter this bay. The bay usually remains clear of the Kara Sea ice that is driven through the strait by N winds. Ice driven into the strait from the Barents Sea by W winds is carried by the current through the middle of the strait. With SE and S winds, ice may drift into the bay, but the ice pressure is minimal. It has been reported that the bay freezes over earlier and is usually free of ice earlier than other parts of the strait.

The inner part of Bukhta Varneka is divided into two arms by a narrow peninsula, from the outer end of which a reef, partly above water, extends nearly 0.5 mile SE. Some buildings, along with a conspicuous tower, stand along the NE side of the E arm of the bay. Other buildings stand near the SE end of the peninsula which separates the two arms of the bay.

**Anchorage.**—The best anchorage in Proliv Yugorskiy Shar is in Bukhta Varneka. It is sheltered from winds from SW through N to E, but S winds cause a swell to enter the bay.

In the NE arm there is anchorage in depths of 3.6 to 9.1m. This arm affords the better shelter, but its head is shallower

than that of the other arm. A coarse sand bottom is found in the outer part of the bay, changing to mud toward its head.

**3.26** The coast between Mys D'yakonova and Mys Sukhoy Nos, 6.5 miles ENE, is about 9m high, bold, and rugged. It is indented by several shallow bights and inlets.

Between Mys Stvornyy, located 1.2 miles ENE of Mys D'yakonova, and Mys Sukhoy Nos, a bank, with depths of less than 5.5m, fronts the shore and extends up to about 1.2 miles seaward.

Range beacons stand on the NW side of Proliv Yugorskiy Shar. The front beacon stands on Mys Stvornyy, 1.2 miles ENE of Mys D'yakonova, and the rear beacon stands 1 mile NE of it. These beacons, in line, indicate the channel leading through the S entrance of Proliv Yugorskiy Shar.

Mys Sukhoy Nos (69°43'N., 60°29'E.) consists of two rocky projections separated by a shallow bay having an entrance about 0.5 mile wide. A 2.4m shoal patch lies near the edge of the coastal bank, about 1 mile SW of the S projection. Depths of less than 1.8m lie within 0.5 mile of Mys Sukhoy Nos and a number of above-water rocks lie on the coastal bank.

Between Mys Sukhoy Nos and Mys Belyy, 12 miles N, the W side of the strait consists mostly of low cliffs. Between Mys Sukhoy Nos and Mys Kanin, 5.5 miles N, the 10m curve trends NNE from a position close N of the former point to a position about 0.2 mile E of the latter and lies up to 1.2 miles off the intervening coast.

Between Mys Kanin and Mys Belyy (69°54'N., 60°29'E.), which is fairly steep-to and from which a light is shown, the 10m curve conforms approximately to the trend of the coast and lies within 1 mile of the shore. Outside of the 10m curve, the depths lying off this stretch of coast are very irregular.

A sunken rock, which breaks, lies about 0.2 mile N of Mys Kanin and a sunken reef extends about 0.1 mile E from Mys Belyy.

An extensive sunken reef extends 1 mile E from a point located on the coast, 1.5 miles NNW of Mys Belyy. A stranded wreck lies 2 miles N of the same point.

### West Coast of Ostrov Vaygach

**3.27** The W coast of Ostrov Vaygach extends from Mys Greben to Mys Rogatyy (70°15'N., 58°25'E.), 49 miles NW. It varies in height from 9 to 28m and is mainly bold and rocky, but in some places it is low and grass-covered.

From Mys Greben to Mys Bol'shoy Lyamchin Nos, the SE extremity of a low promontory 21 miles NW, the coast is irregular and indented by Bukhta Lyamchina (69°49'N., 59°15'E.), several smaller bays, and several coves.

Mys Bol'shoy Lyamchin Nos is the SE end of a low, rocky peninsula which is joined to Ostrov Vaygach by a narrow isthmus. The peninsula terminates in two points, the E and taller one being 9m high. Foul ground extends about 0.1 mile seaward from the S side of the peninsula.

A light is shown from a structure standing on high ground about 1.5 miles WNW of Mys Bol'shoy Lyamchin Nos. A radiobeacon is situated at the light.

**Guba Lyamchina** (69°50'N., 59°14'E.) is an arm of Bukhta Lyamchina extending NW between a peninsula, which terminates in Mys Bol'shoy Lyamchin Nos, and the main coast

of Ostrov Vaygach. This inlet can be used as a refuge when Proliv Yugorskiy Shar is blocked with ice. It is sheltered from winds from all directions except S and SE, though winds from the latter direction do not raise much sea.

The outer part of Guba Lyamchina affords anchorage in depths of 9 to 13m, mud and sand. However, it is not advisable to anchor near the shore, the bottom there being rocky.

Vessels approaching the inlet should steer for the SE extremity of Mys Bol'shoy Lyamchin Nos and round this point at a distance of about 1 mile. They should then proceed to the anchorage, sounding continuously and taking care not to closely approach the NE side of the entrance. A small islet, lying near the entrance of the inner part of the inlet, forms a convenient mark for anchoring.

Between Mys Bol'shoy Lyamchin Nos and Mys Lapin Nos (70°04'N., 58°37'E.), 17.5 miles NW, the coast is more regular, but from the latter point to Mys Rogatyy it is again much indented. Numerous islets and rocks lie off the coast and in the indentations. Mys Lapin Nos is marked by a light. An islet lies about 0.8 mile offshore, 1.5 miles S of this light.

**Ostrova Mikhaylova** (70°14'N., 58°19'E.) is a group of islets which lies 2 miles SW of Mys Rogatyy (70°15'N., 58°25'E.). A reef lies about 0.2 mile S of the southernmost islet of the group.

**Ostrov Kolyubakina** (70°15'N., 58°20'E.), marked by a light, is the northwesternmost islet of Ostrova Mikhaylova. A shoal patch, with a depth of 9.1m, lies 2.2 miles WSW of this islet. Isolated depths of 10, 12.8, and 17.9m lie 6 miles W, 2 miles WNW, and 9 miles WNW, respectively, of Ostrov Kolyubakina.

#### **Proliv Karskive Vorota**

**3.28** Proliv Karskiye Vorota, separating Ostrov Vaygach from Novaya Zemlya, trends NE for 18 miles from its Barents Sea entrance to its Kara Sea entrance. Both sides of Proliv Karskiye Vorota have numerous indentations and are fronted by many islands, islets, and sunken dangers which reduce the width of the fairway to about 13.5 miles.

The coast on the SE side is rugged and some parts of it are bold. Hills near the coast rise to heights of 30 to 91m.

**Ice.**—Frequently, and particularly at the beginning of the navigation season, Kara Sea ice enters the Barents Sea through Proliv Karskiye Vorota and becomes scattered, part of it passing along the coast of Novaya Zemlya for a considerable distance W.

Because of low visibility and the limited sectors over which observation is possible, only scant information is often available, and the only indication of ice in the strait may be the belt of fog which frequently appears above it. Very rarely, in exceptionally cold winters, the strait is completely frozen over, but will remain so for only a short period.

**Tides—Currents.**—A current from the Barents Sea sets NE through the SE part of Proliv Karskiye Vorota, usually extending somewhat over half the width of the strait from the coast of Ostrov Vaygach, but sometimes occupying the entire strait. This current has a normal rate of 0.5 to 1 knot, but with SW winds, it may attain a rate of 2 knots or more.

The tidal currents in the strait are strongest in its SE part, where they have rates of as much as 2.5 knots. The currents are

weakest in the middle of the strait, where they have rates of 0.5 to 0.8 knot. Little or no slack water occurs. Rips frequently appear in the strait.

**Depths—Limitations.**—The depths throughout Proliv Karskiye Vorota are very irregular, large differences being found within a short distance in some places.

In the S approaches, Banka Prokof'yeva (70°19'N., 57°09'E.), with a least depth of 1.8m, forms the outermost danger. This shoal bank lies in the SW approach to the strait and is located about 25 miles W of Mys Rogatyy.

Caution.—A Traffic Separation Scheme has been established in the center of the strait. It is not IMO-adopted. However, the Russian authorities advise that Rule 10 of the International Regulations for Preventing Collisions at Sea (1972) applies.

**Mys Rogatyy** (70°15'N., 58°25'E.) lies on the SE side of the Barents Sea entrance to Proliv Karskiye Vorota.

**Mys Kusov Nos** (70°28'N., 57°07'E.), on the Novaya Zemlya side of the entrance to Proliv Karskiye Vorota, lies 29 miles WNW of Mys Rogatyy. See Sector 4 for a description of the N side of the strait.

**3.29** Guba Dolgaya indents the NW coast of Ostrov Vaygach between Mys Rogatyy and Mys Voronov Nos (70°20'N., 58°31'E.), 5 miles NNE. The shores of this bay are 12 to 31m high, with some parts being bold and having bare patches of black slate. Hills rise inland and in the valleys between them there are patches of marshy tundra and numerous lakes. A number of islets and sunken dangers encumber Guba Dolgaya.

A prominent point is located in the bay, 2.8 miles SE of the southeasternmost islet of Ostrova Lory. It is 73m high and forms a good landmark for entering.

Ostrov Sredniy (70°17'N., 58°30'E.) lies in the middle of the entrance to the bay. Ostrova Lory(Laura Islets) lies near the NE shore of the bay, 3.5 miles SE of Mys Voronov Nos. There are also several smaller islets in this vicinity. Sunken rocks lie in the central part of the bay, 1 mile and 1.8 miles ESE of Ostrov Sredniy. Breakers have been reported to exist in the vicinity of these rocks and also near the shores of the bay. A 3.7m shoal patch lies about 0.2 mile WSW of the southweasternmost islet of Ostrova Lory. Range beacons stand near a village which is situated on the NE side of the bay, close E of Ostrova Lory.

**Anchorage.**—Anchorage can be obtained in various parts of Guba Dolgaya. The bay is sheltered from all winds except those from NW, and even with winds from that direction, vessels lying near the head of the bay are not endangered by the swell. The bottom is mainly mud, which in some places is only a thin layer covering smooth rock.

The best anchorage is in depths of 12 to 17m, mud over rock, near the NE side of the bay and SE of Ostrova Lory. This anchorage is protected from ice by the islets and by the reefs extending from them.

Small craft can anchor NE of Ostrova Lory. There is also good anchorage in a depth of 16.5m, mud, to the E of an islet lying 2.2 miles E of Mys Rogatyy. However, the bottom close to this islet forms a poor holding ground.

**Caution.**—The entrance into Guba Dolgaya is not easily distinguished from a distance. The best landmarks in its

vicinity are the light structures situated on Ostrov Kolyubakina and Ostrov Chirachiy (70°22'N., 58°17'E.).

Because the bay is imperfectly surveyed, vessels must enter with great care and sound continuously.

**3.30** Between Mys Voronov Nos and Mys Kostyanoy Nos, 8 miles NE, the coast is fronted by numerous islets and dangers which lie up to 7.2 miles offshore.

**Ostrov Chirachiy** (70°22'N., 58°17'E.), located 5 miles WNW of Mys Voronov Nos, is the northwesternmost of a group of islets lying on the NE side of the approach to Guba Dolgaya. A lighted beacon stands on this islet. Shoal patches, with depths of 8.2 and 3m, lie about 1 mile and 2 miles, respectively, ENE of Ostrov Chirachiy.

**Ostrov Bol'shoy Voronov** (70°20'N., 58°32'E.), lying 1 mile N of Mys Voronov Nos, is 64m high, dome-shaped, and bluff-sided. A beacon, 12m high, stands on this islet and a 4.5m shoal patch lies 1.5 miles ENE of it.

Ostrova Yanova (70°24'N., 58°29'E.) lies 4 miles N of Mys Voronov Nos. A rocky shoal, with a least depth of 1.2m, extends 1.5 miles NW from this group of islands. Shoal patches, with least depths of 1.8 and 7m, lie 0.8 mile W and 1.2 miles WNW, respectively, of Ostrov Malyy Yanov, the westernmost island of the group. Shoal patches, with depths of 8.8 and 4.5m, lie 1.2 miles NE and 1.8 miles ENE, respectively, of the easternmost island.

**Ostrov Oleniy** (70°28'N., 58°40'E.) lies 2 miles offshore with its SW extremity located 7 miles NE of Mys Voronov Nos. A beacon stands near the center of this island. An islet, from which a light is shown, lies close off the NW end of the island. A racon is situated at the light.

An area of foul ground extends about 6 miles W and 1.2 miles SSW from Ostrov Oleniy. Above-water rocks, sunken rocks, rocks awash, and depths of less than 11m lie within this area. A 6.1m shoal patch lies about 2.5 miles E of the E end of Ostrov Oleniy.

**3.31** Bukhta Voronova, entered between Mys Voronov Nos and Mys Yasaru Salya (70°20'N., 58°40'E.), 3 miles E, affords anchorage for small vessels with local knowledge. There are depths of 10 to 12.8m in the middle of this bay. Foul ground fringes Mys Voronov Nos. A reef, partly above water, lies between an islet, lying in the outer part of the bay, and Ostrov Bol'shoy Voronov. Two hills, 46 and 79m high, rise on the E side of the bay and are both surmounted by cairns.

**Vaygach Radio Station** (70°24'N., 58°48'E.) is situated on the NE side of the bight which lies between Mys Yasaru Salya and Mys My Salya, 4.2 miles NNE. A spit, with depths of less than 5.5m, extends about 1 mile NW from the shore of this bight to a position about 1 mile S of Mys My Salya. Several small islets lie on this spit. Shoal patches, with depths of 8.8 and 9.4m, lie about 0.4 mile WNW and 0.5 mile NW, respectively, of the northwesternmost of these islets.

The buildings of the radio station and the polar station stand in a valley lying between a section of high land, which extends SE from Mys My Salya, and a low hill. The radio mast, an iron framework tower, is 30m high, prominent, and a signal mast stands near it.

Anchorage can be obtained in the roadstead lying W of the radio station. This roadstead is sheltered from winds from NNE through S to SW and is partially sheltered from W and NW winds by the off-lying islets and dangers. With onshore winds, there is a swell in the anchorage and surf on the beach. The roadstead has depths of 13 to 22m over a bottom of mud and gravel.

Range beacons are situated near the radio station. These beacons, bearing 087°, indicate the channel leading between the off-lying dangers to the roadstead. The roadstead can be approached from NE by passing midway between Ostrov Oleniy and Ostrov Vaygach and passing W of a 6.1m shoal patch lying 2.5 miles E of the NE extremity of Ostrov Oleniy.

Due to the numerous dangers in the channel, vessels should not attempt to pass between Ostrova Yanova and Ostrov Oleniy. Between Mys Kostyanoy and Mys Bolvanskiy Nos, 5.5 miles ENE, the coast forms a bight which is shallow in places.

Mys Bolvanskiy Nos (70°28'N., 59°04'E.), the N extremity of Ostrov Vaygach, is 3.7m high and composed of limestone. It is the seaward end of a peninsula which is joined to Ostrov Vaygach by a low, narrow isthmus. A lighted beacon is situated 0.5 mile W of Mys Bolvanskiy Nos. Vessels in the vicinity of this point should proceed with caution, giving it a wide berth.